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INTENSIVE CARE UNIT (I.T.U.) - ADULT AND CARE AFTER CARDIAC SURGERY: OPINION STUDY UNDER THE NARRATIVE OF A PYRAMIDAL INSTRUMENT

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ABSTRACT

This study aims to critically present the adult intensive care unit and care after cardiac surgery. It is known that cardiac surgeries are major surgeries spread worldwide, among them, mainly, myocardial revascularization (CABG) and valve replacements. Patients undergoing cardiac surgery undergo a series of preoperative exams and tests, so that there are no surprises and complications. The procedure has high morbidity and complications related to the preoperative situation and cardiopulmonary bypass (CPB) used during the operation, making it necessary for patients undergoing these procedures to be well prepared hemodynamically and psychologically for the postoperative period.

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INTRODUCTION

Cardiac surgeries are complex procedures that usually last about 4 hours or more. They require the use of general anesthesia and post-operative treatment in the ICU – Intensive Care Unit.

However, contrary to what many people think, ICU care is part of the postoperative period and is independent of the patient's previous clinical condition. All patients undergoing cardiac surgery are admitted to the ICU. The ICU is, above all, synonymous with mindfulness [1]. Many family members and cardiac surgery patients have no idea how the postoperative period in the ICU works and are

scared. The amount of equipment and care we take in the ICU, such as the use of tubes in the trachea, venous and arterial accesses, can cause a false impression that the patient is going through something out of the ordinary, which in most cases is not and truth [2]. Cardiac surgery is considered a complex procedure, indicated for the treatment of cardiovascular diseases, especially with regard to coronary lesions and valvular heart disease. Myocardial revascularization surgery and valve replacement are the most adopted procedures in these cases: in 2019, around 25,600 surgeries were performed in the country by the Unified Health System (SUS) [3]. Therefore, the objective of this study is to present in a direct, critical and succinct way the Intensive Care Unit (I.T.I) – Adult and the care after cardiac surgery. Justifying itself through the opinion under the narrative of a pyramidal instrument.

METHODS

In the publishing world, what would be the place of a critical review? The answer to this question is related to two others that should guide any exercise in writing an academic text: what do we want and what do we want to write, research, communicate about? Where do we stand when we intend to publish research results or produce knowledge in the form of original articles, opinion articles, theoretical essays and here, in our lens, critical book reviews? [4]. In a quick search for journals in the area of Public Health/Public Health, we recognized a gap on what a critical review in the academic format should contemplate. Perhaps because we still value this academic style little, and because we need to encourage and value the initiation of new readers who exercise interpretation, analysis and critical discussion [4]. In critical reviews, authors must position themselves, illuminating and critically analyzing the work. Regarding the subject in question - whose authorship can be placed as a single work, or organized in multiple paragraphs - it is worth remembering Foucault when highlighting four aspects associated with the author's role in the text: (1) ownership of ideas, and responsibility over the which you have to answer academically; (2) argumentative content and clarity in the exposition of ideas; (3) the style; (4) heterogeneity that can be expressed in the plurality of the creative action [5]. In this sense, the methodological path adopted for this article will be divided according to the figure below, into several gaps in theoretical knowledge, so that through the results and discussion, the theme in question is exemplified for the foundation of this research.

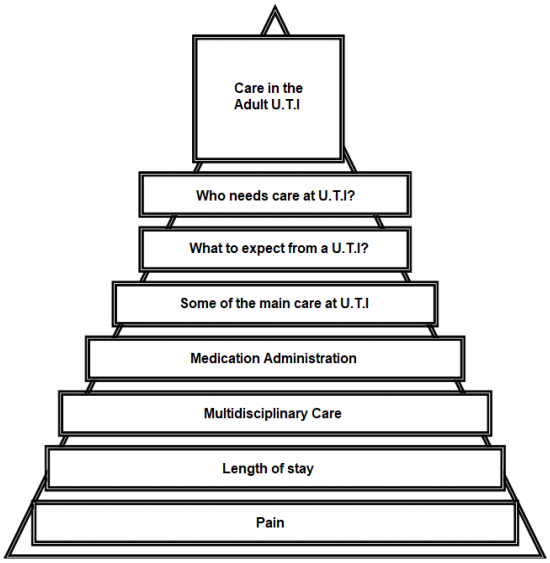

Figure 1. Pyramiral Assessment Instrument

RESULTS AND DISCUSSION

Cardiac surgery patients are referred to ICU care on a scheduled basis. According to preoperative assessments, the medical team defines the best practices for each patient. There are also emergency cases, of people who did not expect to have this type of hospitalization. This is where heart attacks come in, for example. In general terms, the main problems that lead patients to undergo heart surgery are: Diseases that compromise the heart's irrigation system (coronary); Heart valve diseases (especially the mitral and aortic valves); Aortic diseases (dilation, dissections and pre-ruptures); Congenital heart disease (when the person is born with a problem) [6]. After the surgical procedure (elective or emergency), patients arrive at the ICU still under the effect of anesthesia and with artificial respiration. Under these conditions, it is common for people to present a certain hemodynamic instability, altered pressure, inadequate diuresis and lungs still suffering the effect of the surgery. And that, of course, requires closer care. In the ICU, the patient is closely monitored. For this, a series of equipment and direct access to the patient's circulatory system are used. These cares are normal, and do not necessarily indicate a greater severity of the patient [7]. Some of the main care in the ICU are: Intubation of the patient: Endotracheal intubation is important to ensure the correct ventilation of the patient during the procedure, since he will be unconscious, unable to breathe alone. In the ICU, as the anesthetic substances wear off and the person regains consciousness, the tube can be removed. That is, of course, if there are no signs of bleeding or complications [8].

The tube in the trachea is usually removed 4 to 8 hours after entering the ICU. For this procedure to be progressive, monitored and safe, it is done with the participation of doctors, physiotherapists and nursing professionals. All are prepared to assist the patient in whatever is necessary. If the patient's lung is somehow compromised, the time for intubation and ICU care may be longer. In these cases, light sedation is used so that the patient can go back to sleep and be awakened, when necessary, for the process of removing the endotracheal tube. Accesses: Accesses are “gateways” that the ICU team uses to administer medications directly into the patient's circulatory system [9, 10]. The central veins, usually the subclavian and jugular veins, are the most used for this purpose. These accesses also allow performing tests, monitoring how much fluid the patient needs and other hemodynamic parameters. On the other hand, arterial accesses, usually made through the radial or femoral arteries, are connected to monitors that continuously display the individual's blood pressure. Temporary Pacemaker: The temporary pacemaker is part of ICU care for virtually all patients. Because of the manipulation of the heart muscle, some people may come out of heart surgery with arrhythmia or atrioventricular block. To prevent complications, the medical team leaves two small wires implanted in the heart – exposed in the region of the abdomen. These wires are used to control these complications [11, 12]. If necessary, a temporary pacemaker is connected to them. Atrial Fibrillation is the most common arrhythmia in the postoperative period of cardiac surgery. Most of the time, this arrhythmia is corrected with medication. If the arrhythmia is not reversed, the patient is reassessed and new techniques can be used, such as electrical cardioversion. The pacemaker is removed, according to medical evaluation, when the patient is free of any blockage or bradycardia. In some cases, implantation of a permanent pacemaker is necessary [13, 14].

Pain after cardiovascular surgery: The ICU team is specially trained to prevent, recognize and treat possible pain in the postoperative period of cardiac surgery. As we saw in the post Pain after heart surgery, incision techniques, suturing and pain medication have advanced a lot in recent years. As a result, pain after heart surgery is no longer as prominent in patients' recovery as it used to be. Multidisciplinary Care The multidisciplinary team working in the ICU is extremely trained. Health professionals are familiar with all the reactions that patients may experience after surgery. They are prepared to act immediately. It is not just about taking care of a potentially serious patient, but monitoring him to avoid any serious situation that could surprise him in the postoperative period [15, 16, 17]. In addition to the constant presence of the medical team, ICU care involves professionals from different health areas, such as: Nursing: Each cardiac surgery patient has a dedicated nursing

professional, who monitors and evaluates their progress. Nursing professionals are trained to communicate and identify important signs, even when the patient cannot speak. They are prepared to provide all care in the ICU and take action if necessary, making important contacts with the family and the medical team. Physiotherapy: Physiotherapists play a key role in recovery after the surgical procedure. Care in the ICU involves early mobilization and breathing exercises, which prevent the formation of mucus in the lungs, preventing infections and complications. Nutrition: It is common for cardiac surgery patients to have other associated diseases and conditions such as diabetes, high blood pressure and food allergies [18]. In the postoperative period, nutritionists aim to verify the nutritional status of patients, plan and carry out dietary interventions that adapt to the needs and care in the ICU. Speech-Language Pathology and Audiology Speech-language pathologists are an important part of ICU care. They assess, among other factors, patients' swallowing difficulties and help in the adoption of strategies to overcome them. Psychology Patients undergoing cardiovascular surgery may experience symptoms of anxiety and even depression [19]. These problems even extend to the family. Knowing how to deal with the situation is essential for resuming the daily routine and also for adherence to ICU care. Length of Stay The minimum length of stay in the ICU after heart surgery is around 48 hours. The association of different treatments in the surgical procedure (coronary, valves or aorta) may require a longer recovery period. The same happens with patients who are already at increased risk due to previous clinical conditions (such as neurological, pulmonary, renal disorders, etc.). Usually, they demand a longer time of care in the ICU. Positive stimuli, such as those promoted by the humanized ICU, can make the process faster and more pleasant [20].

CONCLUSION

This study achieved its objective, as it presented, according to the suggested methodological path pyramid instrument, the intensive care unit and care after cardiac surgery, based on fundamental aspects for scientific research. Heart surgery is increasingly common. After all, people are living longer and the population of patients with this need is increasing worldwide. With the advancement of time, there is also the advancement of Medicine for the treatment of various problems experienced from this perspective. With technological advances in medicine combined with greater access to information, patients have a better quality of life. Thus, they are more active, independent and biologically stronger. More effective treatments, the search for a good diet and healthy habits are factors that contribute to the elderly having a satisfactory survival after heart surgery.

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